

**Instructions for the  
installation and use  
of the  
RABCO ST-4  
STRAIGHT LINE  
TURNABLE**

Your RABCO ST-4 is warranted free from defects for a period of 12 months from the date of purchase. This warranty covers parts and labor provided all instructions have been followed. This warranty does not cover damage caused by abuse or mishandling. This warranty does not cover units which have been repaired or altered by anyone other than an authorized dealer.

If for any reason your ST-4 is defective, contact your dealer. If necessary he will obtain a Return Authorization from the factory. Units which are received at the factory without authorization, will be returned freight collect.

## SECTION I - PREPARATION FOR USE

**Step 1.** Remove the inner foam package from the carton. It is advisable to retain all the packing materials intact. Should the ST-4 ever need to be returned to the factory for any reason it can be safely shipped only in its original packing. Remove all parts from the packing.

**Step 2.** Fill in all the information on the warranty card and return to the factory immediately. **THIS IS EXTREMELY IMPORTANT.**

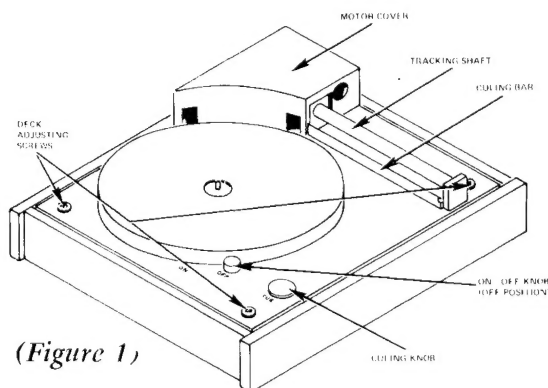
The ST-4 is carefully manufactured from the finest materials and components available. Your purchase is supported by a one year parts and labor warranty.

**Step 3.** Remove the turntable from the carton. You will find additional literature underneath.

Before proceeding further, it is advisable to read Section IV - Operation, in order to familiarize yourself with the operational controls.

**Step 4.** Loosen the screw holding the motor cover in place and lift the cover off. The screw is located on the rear of the cover.

**Step 5.** Move the turntable switch knob to the forward or on position. See Figure 1.



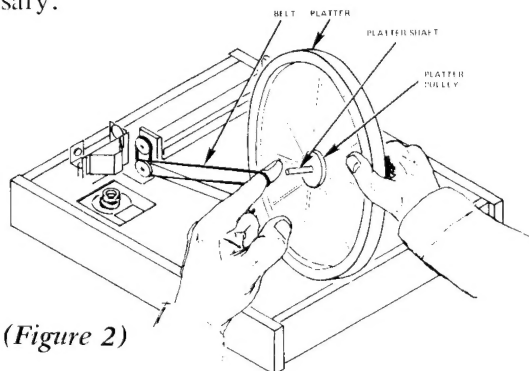
(Figure 1)

**Step 6.** Remove the red plastic plug from the platter bearing well and hold the end of the belt as shown in Figure 2.

**Step 7.** Hold the platter with the right hand as shown in Figure 2.

**Step 8.** Now slip the end of the belt over the end of the platter shaft and on to the platter shaft pulley. Take care to keep a small amount of tension in the belt so it will not slip off the pulleys.

**Step 9.** Check to make sure that the turntable switch is in the on position described in Step 5. Now rotate the platter to its upright position and lower gently into the platter bearing. The platter bearing well has a reservoir which has been filled with oil at the factory. No additional oil is necessary.

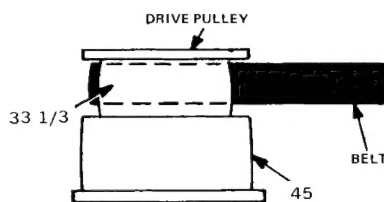


(Figure 2)

**Step 10.** Rotate the platter. The tracking shaft (See Figure 1) should slowly revolve when the platter turns. **DO NOT TURN PLATTER BACKWARDS.** The top surface of the shaft should be moving AWAY from the platter towards the rear of the unit.

**Step 11.** Place the platter belt over the drive pulley and around the outside of the platter, taking care to eliminate any twist. With the belt on the upper position of the pulley, the platter will run at 33 1/3 RPM. With the belt on the lower portion, the platter will run at 45 RPM.

When shifting it is advisable to have the unit off. Shift the belt on the pulley, and turn the unit on. It may be necessary to hold your finger either over or under the belt for one or two revolutions until the belt stabilizes.

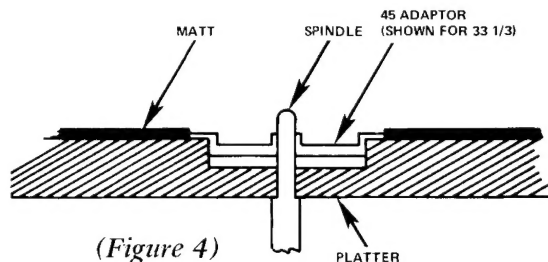


(Figure 3)

**Step 12.** Place the 45 adaptor in the center of the platter and drop the rubber matt into place. Make sure that the matt is pressed down firmly around the adaptor.

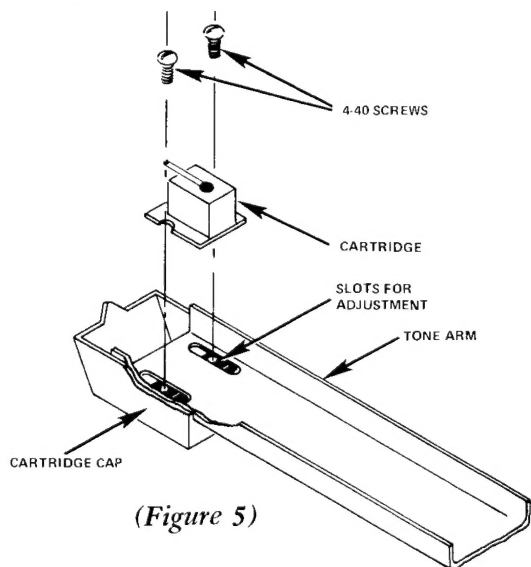
For 33 RPM the adaptor should be installed as shown in Figure 4. For 45 RPM, turn it over.

**Step 13.** Plug the ST-4 into a wall outlet. Move the turntable switch knob to the on position and check to make sure that the belt is running correctly without a twist. Now turn the unit off and replace the motor cover. Tighten the motor cover screw so that the cover cannot shake.



**Step 14.** While the ST-4 deck has been adjusted to the proper height at the factory, it is possible that it has shifted during shipment. Therefore, a small hexagonal wrench has been supplied for this adjustment.

There are four adjusting screws, one in each corner of the table. Turning the screw clockwise will lower the table; counter-clockwise will raise the table. Adjust the four corners so that the table is from 1/16" to 1/8" below the top of the wooden base. This adjustment is not critical.



## SECTION II - CARTRIDGE INSTALLATION

**Step 1.** Now remove the plastic cartridge cap from the end of the tone arm. We have supplied sets of #4-40 screws in varying lengths from 1/8 to 3/4 inch. Before actually mounting the cartridge try a screw through the cartridge mounting lug. The thread should protrude approximately 1/8 of an inch beyond the cartridge.

With the tone arm as shown in Figure 5 fasten the cartridge with the two screws you have chosen. Tighten the screws but take care not to over tighten as you may strip the threads in the cartridge cap.

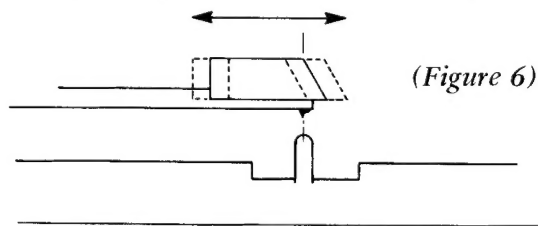
You will note that we have supplied plastic shims which can be used to lower the cartridge if necessary. With the stylus in place on the record surface the tone arm should be approximately parallel to the record surface. If the arm is tipped down a great deal, use shims under the cartridge as necessary.

**Step 2.** Slip the audio cable clips on the terminals of the cartridge. The color code is as follows:

Red	-	Right	Hot
Green	-	Right	Ground
White	-	Left	Hot
Black	-	Left	Ground

## SECTION III - TRACKING FORCE & OVERHANG ADJUSTMENT

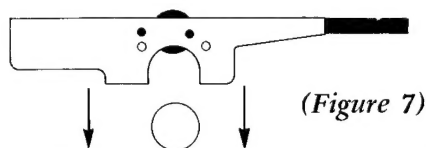
**Step 1.** With the turntable off, raise the arm and slide it to the center of the turntable, over the spindle. Lower the arm, loosen the cartridge screws, and slide the cartridge cap in or out until the stylus is



over the center of the spindle as shown in Figure 6. Now tighten the screws, again taking caution not to strip the threads in the cartridge cap.

**Step 2.** Tracking force must be adjusted with the platter turning. With the cueing

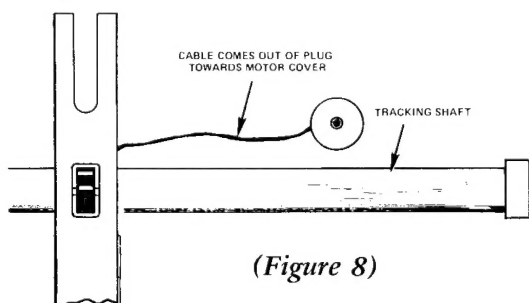
bar in the up position (See Section IV-operation) place the tone arm on the tracking shaft as shown in Figure 7. The tone arm is simply lowered onto the shaft. It is not fastened. Do not plug in the audio cable.



Place the arm over the outer edge of the record and start the turntable. Now press the cueing button and hold for a count of two. The cueing bar will lower; but the tone arm may or may not, depending on the counterweight adjustment.

Screw in the counterweight until the arm will stay down on the record. Now slowly back out the weight until the stylus will barely stay down. This is zero tracking force. Now screw the counterweight in to obtain the desired force. One full turn of the weight will add  $\frac{1}{4}$  gram of force. The weight is marked so that you know when you have made a complete turn.

**Step 3.** Plug in the tone arm audio cable, and the ST-4 is ready for use. The audio plug can only be inserted one way as shown in Figure 8.



## SECTION IV - OPERATION

The ST-4 has two simple controls:

1. Turntable on - off knob
2. Cue knob

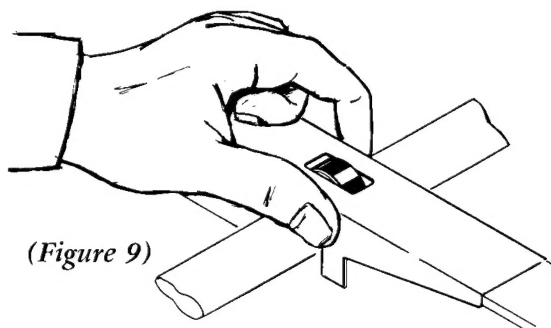
All operational controls are shown in Figure 1.

The turntable can be started or stopped independent of the arm motion. Likewise, the tone arm can be raised or lowered regardless of whether the turntable is on or off.

To start the platter moving simply move the on - off lever to the on position. This will be accompanied by a click which is the fast start mechanism. When the platter turns, the tracking shaft also turns.

When the lever is moved to the off position you will hear another click and the rubbing of the brake. This is a normal sound.

The tone arm can be moved back and forth along the tracking shaft only when it is in the up position. To move the arm, grasp it lightly between the index finger and the thumb at a point directly above the tracking shaft as shown in Figure 9.



When you have positioned the stylus above the desired position, you can lower the arm by pressing the cue button and holding for a count of two, or until the arm starts to move down. Likewise, when raising the arm, press the button and hold for a count of two.

A photo-electric cell will automatically raise the arm at the end of the record.

The cartridge holder is easily removable. Simply loosen, but do not remove, the locking screw in the top of the tone arm and pull out the front portion. When replacing the cartridge holder push it in all the way and then tighten the screw firmly. If the screw is not tight, contact on all four strips of the connector may be imperfect, thus causing audio signal problems.

The ST-4 is supplied with an audio cable to plug directly into your amplifier or pre-amp. The red terminal is the right channel and the left channel is grey. A chassis ground is built into the grey terminal.

# RABCO ST-4

## **ADDENDUM #1**

Your ST-4 has been adjusted at the factory to operate on a standard line voltage of 115 volts. However, there are some areas which have substandard voltages, and this may require a minor adjustment to increase the lamp voltage for the end of record lift circuit.

If your arm does not lift automatically at the end of the record, locate screw adjustment hole between platter and motor cover. Turn the screw clockwise until the arm lifts automatically after playing through the record. One-eighth of a turn will be more than enough.

If your arm lifts before the end of the record the screw should be rotated counterclockwise until the arm lifts automatically after playing through the record.

## **ADDENDUM #2**

The turntable drive motor is a synchronous motor with an operating temperature of 170°. While extremely hot to the touch, this is the normal temperature of this motor.